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LATE CAMBRIAN JELLYFISH FROM CENTRAL WISCONSIN, USA

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Fossilization of soft-bodied faunas has long held the intrigue of paleontologists. The softbodied Ediacaran fauna of the Late Precambrian is well known and fairly abundant. However, except for the extraordinary fossils from the Solnhofen, Mazon Creek, and Burgess Shale formations, Phanerozoic medusae are rare. In the Late Cambrian ripple-marked sandstone (Mt. Simon or Wonewoc Formations) of Central Wisconsin, well over 200 medusa-like impressions occur together, providing a unique opportunity to study a large number of specimens. However, unlike other fossil medusae, which are known from body impressions, this new form is known mainly from behavioral impressions. We sought to test whether these impressions A) are most likely to be jellyfish, B) are very unlikely to be jellyfish, or C) lack information for determination whether or not they could be jellyfish. From observations of live, stranded medusae, combined with taphonomic experiments on a variety of soft-bodied taxa, we concluded that that they are jellyfish behavioral impressions. Based on this interpretation, we were able to deduce that the medusae, after stranding live, excavated the sand in characteristic patterns. Superimposed on some of the excavations are impressions of the oral morphology, allowing for comparison of this taxon to the Recent hydrozoan medusa Staurophora mertensii Brandt, 1835. This Cambrian form is previously unknown.